

IN THE TITLE:

Please replace the title with the following: ✓

Apparatus and Method for Performing General Integrity Checks Using Integrity Rule Checking Points in an Enterprise Application

IN THE SPECIFICATION:

Please replace the paragraph beginning at line 6 of page 1 with the following:

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The present invention is related to applications entitled "Method and Data Processing System for Specifying and Applying Rules to Classification Based Decision Points in an Application System," U.S. Patent Application Serial No. 09/204,970 (Attorney Docket No. AT9-98-287), filed on even date hereof, assigned to the same assignee; and "Method and Apparatus for Applying Business Rules in an Object Model Driven Context," U.S. Patent Application Serial No. 09/204,973 (Attorney Docket No. AT9-98-266), filed on even date hereof, assigned to the same assignee, which are incorporated herein by reference.

IN THE CLAIMS:

A complete version of the pending claims is as follows:

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1. (Once Amended) A method for performing general integrity checks using rules in an application running on a data processing system comprising:
 - identifying a point in a unit of work where application state integrity is to be verified, wherein the unit of work includes a plurality of participants;
 - responsive to determining that the unit of work is to be completed, obtaining rules associated with each participant in the unit of work; and

responsive to obtaining the rules, running the rules obtained for each of the participants to verify the integrity of an application state, according to the plurality of participants.

2. (Unchanged) The method of claim 1, further comprising:
responsive to a negative result obtained by running the rules, aborting the unit of work.
3. (Unchanged) The method of claim 1, further comprising:
responsive to a positive result obtained by running the rules, committing the unit of work.
4. (Unchanged) The method of claim 1, wherein each participant is associated with a name and wherein the step of obtaining rules associated with each participant in the unit of work comprises obtaining rules based on the name associated with the participant.
5. (Unchanged) The method of claim 4, wherein the plurality of participants are a plurality of objects and wherein the name associated with an object within the plurality of objects is the class name of a participating object.
6. (Unchanged) The method of claim 1, wherein each participant is associated with a name, wherein the unit of work is associated with a type, and wherein the step of obtaining rules associated with each participant in the unit of work comprises obtaining rules based on the name associated with the participant and the type associated with the unit of work.
7. (Once Amended) The method of claim 1, wherein at least zero integrity checking rules are associated with each participant within the plurality of participants.
8. (Unchanged) A method in a data processing system for performing general integrity checks using rules, the method comprising:

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detecting a commit for a unit of work;
identifying participants in the unit of work in response to detecting the commit for the unit of work;
determining whether rules are present for the participants in the unit of work;
running the rules for participants identified as having at least one rule;
determining whether a violation of an integrity rule within the rules identified for any participant has occurred; and
committing the unit of work depending on the results of running the rules.

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9. (Unchanged) The method of claim 8 further comprising:
aborting completion of processing by the unit of work in response to a determination that a violation of a rule has occurred; and
committing completion of processing by the unit of work in response to a determination that no violation of a rule has occurred.
10. (Unchanged) The method of claim 8, wherein each participant has zero or more rules associated therewith.
11. (Unchanged) The method of claim 8, wherein each rule associated with a unit of work has available for use each participant within the unit of work.
12. (Unchanged) An enterprise application for use in a computer, the enterprise application comprising:
a unit of work, wherein the unit of work accumulates participants that affect a state of the enterprise application;
a plurality of business rules, wherein the plurality of rules are used to verify the integrity of the application state; and
a unit of work control point, wherein the unit of work control point locates applicable rules for participants in response to an activation of the unit of work to complete processing of the unit of work.

13. (Unchanged) The enterprise application of claim 12, wherein the activation of the unit of work control point for the unit of work is initiated by a commit instruction to the unit of work.

14. (Unchanged) The enterprise application of claim 12, wherein the control point identifies applicable rules for all of the participants in the work of unit.

15. (Unchanged) The enterprise application of claim 12, wherein the control point applies applicable rules to a portion of the participants in the work of unit.

16. (Unchanged) The enterprise application of claim 12, wherein the applicable rules are identified based on a name associated with the participant.

17. (Unchanged) The enterprise application of claim 12, the participant is an object and wherein the name is the class name of the participating object.

18. (Unchanged) The enterprise application of claim 17, wherein the unit of work is associated with a type and wherein the applicable rules also are identified based on the type associated with the unit of work.

19. (Unchanged) A data processing system for performing general integrity checks using rules in an application running on a data processing system comprising:

identifying means for identifying a point in a unit of work where application state integrity is to be verified, wherein the unit of work includes a plurality of participants;

first obtaining means, responsive to determining that the unit of work is to be completed, for obtaining rules associated with each participant in the unit of work; and

second obtaining means, responsive to obtaining the rules, for running the rules obtained for each of the participants to verify the integrity of the system, according to the plurality of participants.

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20. (Unchanged) The data processing system of claim 19, further comprising:
aborting means, responsive to a negative result obtained by running the rules, for
aborting the unit of work.

21. (Unchanged) The data processing system of claim 19, further comprising:
committing means, responsive to a positive result obtained by running the rules,
for committing the unit of work.

22. (Unchanged) A data processing system for performing general integrity checks
using rules, the data processing system comprising:

detecting means for detecting a commit for a unit of work;

identifying means for identifying participants in the unit of work in response to
detecting the commit for the unit of work;

first determining means for determining whether rules are present for the
participants in the unit of work;

running means for running the rules for participants identified as having at least
one rule;

second determining means for determining whether a violation of an integrity rule
within the rules identified for any participant has occurred; and

committing means for committing the unit of work depending on the results of
running the rules.

23. (Unchanged) The data processing system of claim 22 further comprising:
aborting means for aborting completion of processing by the unit of work in
response to a determination that a violation of a rule has occurred; and

committing means for committing completion of processing by the unit of work in
response to a determination that no violation of a rule has occurred.

24. (Unchanged) The data processing system of claim 22, wherein each participant
has zero or more rules associated therewith.

25. (Unchanged) A computer program product for performing general integrity checks using rules in an application running on a computer program product comprising:

- first instructions for identifying a point in a unit of work where application state integrity is to be verified, wherein the unit of work includes a plurality of participants;
- second instructions for responsive to determining that the unit of work is to be completed, obtaining rules associated with each participant in the unit of work; and
- third instructions for responsive to obtaining the rules, running the rules obtained for each of the participants to verifying the integrity of the system, according to the plurality of participants.

26. (Unchanged) The computer program product of claim 25, further comprising:

- first instructions for responsive to a negative result obtained by running the rules, aborting the unit of work.

27. (Unchanged) The method of claim 25, further comprising:

- first instructions for responsive to a positive result obtained by running the rules, committing the unit of work.

28. (Unchanged) A computer program product in a data processing system for performing general integrity checks using rules, the computer program product comprising:

- first instructions for detecting a commit for a unit of work;
- second instructions for identifying participants in the unit of work in response to detecting the commit for the unit of work;
- third instructions for determining whether rules are present for the participants in the unit of work;
- fourth instructions for running the rules for participants identified as having at least one rule;
- fifth instructions for determining whether a violation of an integrity rule within the rules identified for any participant has occurred; and